



# State of Utah

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December 27, 1994

TO: Daron Haddock, Permit Supervisor

FROM: Paul Baker, Reclamation Biologist *PBB* #2

RE: Draft Review, Lease by Application Stipulation Response, Crandall Canyon Mine, Genwal Coal Company, ACT/015/032, Working File, Emery County, Utah

## SYNOPSIS

On September 22, 1994, the U. S. Forest Service issued a letter consenting to Genwal's Lease by Application No. 9 (LBA) permit revision. This letter contained a list of several problems that the Forest Service considered to be minor. The Division issued a revised permit including the LBA on September 26, 1994. This permit required Genwal to respond to the Forest Service deficiencies by November 1, 1994. Genwal's response was received October 31, 1994.

The response still has deficiencies that need to be corrected. At least one of these may warrant enforcement action.

This review only considers portions of the Forest Service letter dealing with biology and land use, including archaeology, issues. It is organized according to the R645 regulations rather than according to the organization of the Forest Service letter.

## ANALYSIS

### VEGETATION INFORMATION

Regulatory Reference: R645-301-321

#### Analysis:

#### Stipulation:

#### Appendix 3-1 Vegetation Reference Area and Species List

This does not appear to have been updated since 1988. Is it valid for the new lease area?

#### Response:



Genwal's response letter says:

The vegetative reference area and species list was prepared as a comparison for revegetation of the disturbed areas. The only disturbed areas are associated with the existing surface facilities and no new disturbances are proposed in the revised MRP for LBA #9. In addition, a reference area is a standard which is chosen to be representative of the vegetation and percent ground cover present in a mining area. Unless disturbed by natural hazards or direct permission is received from the regulatory agencies, reference areas are not typically changed for the life of the mine.

The response is correct. Genwal does not need to change its vegetation reference areas or include additional ones because of the new lease.

*Stipulation:*

Appendix 7-30 Manti-La Sal National Forest Vegetation Data

The map needs a legend or description. It is impossible to determine vegetation type from the map as it is.

*Response:*

Genwal has included a legend for the map in Appendix 7-30. The map was apparently prepared by the Forest Service and is not very clear. Nevertheless, it appears to be adequate.

*Stipulation:*

Appendix 7-31 Percent Ground and Crown Cover Calculations

There is no description of the land type or vegetation type. The data in the table are useless as presented and must be revised.

*Response:*

The response includes a legend to be used in association with data in Appendices 7-27 through 7-39. The legend contains general descriptions of vegetation and land forms. This legend appears to adequately address the requirement.

**Findings:**

Genwal has complied with the requirements of the permit stipulations relating to this regulation.

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## **FISH AND WILDLIFE INFORMATION**

Regulatory Reference: R645-301-322

### **Analysis:**

#### *Stipulation:*

#### **Page 3-17 Wildlife**

Raptor #4 should be "Swainson's hawk," not "Swenson Hawk." Coopers hawk should be added to the list. It is unlikely that the Ferrugenous hawk would occur in the area.

If there are possible impacts to raptors, the company should contact the Forest Service in addition to UDWR.

#### *Response:*

The typographical error formerly on page 3-17 where Swainson's hawk was listed as Swenson's hawk has been corrected. The plan includes a note that the Forest Service does not believe the ferruginous hawk is likely to occur in the area. However, Cooper's hawk has not been added to the list. Cooper's hawks are tree-nesting raptors that are likely to nest in the permit area.

There are two other typographical errors that should be corrected in this section (page 3-18). Goshawk is listed as "gashawk," and sharp-shinned hawk is listed as "sharp skinned hawk."

Genwal has committed to contact the Forest Service if there are impacts to raptors.

#### *Stipulations:*

#### **Page 3-16, third paragraph**

The baseline data are useless unless there is a periodic check to determine deviations from baseline conditions. The company should commit to an aquatic macroinvertebrate study every 3 years to show that there have been no impacts to the aquatic environment.

#### **Page 3-33, fourth paragraph**

As on page 3-16, a periodic survey of macroinvertebrates is necessary to compare with baseline data to detect changes in the aquatic environment.

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*Response:*

The plan says Genwal conducted a macroinvertebrate study in 1994 and will perform another in the summer of 1999. The results of the 1999 study will be used to determine if additional monitoring of the habitat and biotic community are prudent.

Macroinvertebrate studies are normally done in the spring and fall rather than the summer.

The stipulation required Genwal to commit to macroinvertebrate studies every three years, and Genwal committed to one more in five years. They have not complied with the stipulation.

*Stipulation:*

Page 3-6 Reptiles and Amphibians

There is a discussion of amphibians, but no mention of reptiles.

*Response:*

The plan has been amended to say that reptiles are found throughout the permit area from riparian areas to mesic hillslopes and ridgetops. It says that Table 3 in Appendix 3-3 is a list of reptiles that may be found in the area and their relative abundance.

Appendix 3-3, Table 3, is a list from a Wildlife Resources publication and includes reptile species that could occur in the area. It is not site-specific but is adequate for the purposes of the mining and reclamation plan.

*Stipulations:*

Pages 3-6 through 3-8 Migratory Birds of High Federal Interest

The first paragraph starts with a discussion of the 22 species on the FWS list then jumps into grassland hunting habitat, presumably for some type of raptor. Something is missing, and the paragraph does not make sense. Also, how current is the list of 22 species?

Number 11 on the list is the "Flammulated Owl," not the "plammulated Owl."

There is a discussion of a few of the birds on the list, but not all. Why were some omitted?

There is no mention of the Forest Service, region 4, list of especially significant

species occurring in the area.

In the paragraph immediately below the list of the 22 species (page 3-7), it states 5 of the species were previously discussed in the report. We can not find where they were discussed.

The second paragraph below the species list does not make sense. It goes from a discussion of reporting the presence of T&E species into a discussion of golden eagle nest sites.

*Response:*

The first paragraph under this section has been rewritten and clarified. The response letter says the 22 species list is current with the "FWD" but that discussion has been added to address the F, Region 4, list of significant species occurring in the area.

The list of 22 migratory birds of high federal interest was prepared by the Fish and Wildlife Service in 1980. It has not been updated. As discussed in Appendix 3-3, some of the birds on the list are unlikely to occur in Genwal's permit area.

The typographical error with the flammulated owl has been corrected.

The response letter says a more thorough discussion of the birds on the list of migratory birds of high federal interest is in Appendix 3-3. Appendix 3-3 contains a discussion of all birds on the list.

The entire section under "Migratory Birds of High Federal Interest" is confusing and should be rewritten. Some of the problems are:

- On page 3-7, Genwal has included a list of "5 bird species" which are known or suspected threatened, endangered, proposed, and sensitive species and that are more likely to be potentially present in the area of influence of the mine. This list includes Townsend's big-eared bats. Bats are not birds.
- The peregrine falcon is an endangered species, and the plan says Wildlife Resources considers it to potentially occur in the "study area." Yet, this species is not included in the list of threatened, endangered, proposed and sensitive species.
- The plan has a list of four species that it says Wildlife Resources believes are actually or potentially in the permit area, then it lists three more species that could be present. Why not list all seven together?

It is suggested that Genwal use the following organization:

1. Include the list of migratory birds of high federal interest.
2. Summarize the narrative information in Appendix 3-3 concerning migratory birds of high federal interest by presenting a list of birds from this group that may be in the permit area.
3. List threatened, endangered, and sensitive (combined Forest Service and Fish and Wildlife Service lists) species that may occur in the permit area.

Later in this section is a discussion of two golden eagle nests. There is a statement that the golden eagle nest high on the ridge north and east of the mine portal area is the only raptor nest in Crandall Canyon according to information supplied by Wildlife Resources. This statement leads one to believe there are no other raptor nests in Crandall Canyon, and this contradicts other information in the mining and reclamation plan. It should be modified.

In 1993 monitoring, Wildlife Resources was unable to locate golden eagle nests 181.167 and 187.273. The Fish and Wildlife Service believes nest 181.167 may have been abandoned because of increased human activity in Crandall Canyon. With the rest of the discussion about these two nests, the plan should mention that they could not be found in the 1993 monitoring.

The last two Forest Service comments have been addressed in revisions of the two paragraphs.

*Stipulation:*

Page 3-9, section 3.22.230

Spotted bats, Townsend's big-eared bats, and spotted frogs are known to occur on the Wasatch Plateau, but are not mentioned.

*Response:*

As mentioned above, Townsend's big-eared bats are included in the list of rare birds. Spotted bats and spotted frogs are mentioned in Section 3.22.230 regarding other species or habitats requiring special protection.

Although the plan says spotted bats and spotted frogs have not been found in the permit area, the permit area appears to contain suitable habitat for both of these species and for Townsend's big-eared bats. According to information in the Forest Service publication *Threatened, Endangered, and Sensitive Species of the Intermountain Region*, Townsend's big-

eared bats use juniper/pine forests, shrub/steppe grasslands, deciduous forests, and mixed coniferous forests up to 10,000 feet elevation. Spotted bats have been found in ponderosa pine, desert scrub, pinyon-juniper, and open pasture habitats. Spotted frogs prefer permanent water, such as the marshy edges of ponds or lakes, algae-grown overflow pools of streams, or springs with emergent vegetation in the breeding season. Habitat is usually in mixed conifer and subalpine forests, grasslands, and brushlands and sagebrush and rabbitbrush.

*Stipulation:*

Appendix 3-2 Aquatic Resources of Crandall Canyon

The macroinvertebrate survey data for 1981 and 1982 are missing.

*Response:*

The response letter says macroinvertebrate studies were conducted in 1980, 1982, and 1983 and that the data are in Appendix 3-2. Appendix 3-2 does contain studies from these years, but the 1980 and 1982 reports are stream surveys rather than macroinvertebrate studies. They mention the two most common genera of macroinvertebrates, but there are no details.

It appears that the mining and reclamation plan text does not reference Appendix 3-2 for this information. The information in this appendix is important baseline information that relates to the rest of the plan, and it needs to be referenced. Also, the plan indicates that another macroinvertebrate study was done in 1994. When the results of this study are received, they need to be included in the plan.

**Findings:**

Cooper's hawks need to be added to the list of tree-nesting raptors potentially occurring in the permit area. Two typographical errors (gashawk and sharp skinned hawk) on page 3-18 need to be corrected.

By reference to the Forest Service comments, the Division stipulated that Genwal commit to conduct macroinvertebrate studies in Crandall Creek every three years. The revised plan says Genwal conducted one such study in 1994 and will do another in 1999. This is not in accordance with the stipulation to which Genwal agreed. Genwal needs to commit to a macroinvertebrate study every three years as specified.

The discussion of migratory birds of high federal interest and of threatened, endangered, and sensitive species contains some inaccuracies and inconsistencies that need to be corrected. It is suggested that this entire section be revised.

The statement that the golden eagle nest high on the ridge north and east of the mine portal area is the only raptor nest in Crandall Canyon according to information supplied by Wildlife Resources leads one to believe there are no other raptor nests in Crandall Canyon. This contradicts other information in the mining and reclamation plan. The statement should be modified.

Information about golden eagle nests 181.167 and 187.273 should be updated. Wildlife Resources personnel were not able to find these nests in the most recent raptor survey of the area.

The mining and reclamation plan should reference Appendix 3-2 for results of the 1980 macroinvertebrate study and 1982 and 1983 stream surveys.

## **FISH AND WILDLIFE PROTECTION**

Regulatory Reference: R645-301-333

### **Analysis:**

#### *Stipulation:*

Page 3-14, section 3.33, Impacts to Fish and Wildlife

There is a discussion of surveying for impacts to raptors, but no mention of identifying impacts to the other wildlife or fish occupying the area.

#### *Response:*

Genwal's response letter says they have added a discussion on page 3-15 clarifying what surveys Genwal conducts or will conduct to monitor the impacts to fish or other wildlife in the area. New discussion on page 3-15 includes mention of three monitoring techniques: 1) Genwal has agreed to do a survey of tree-nesting raptors if subsidence is detected. 2) They have two permitted UPDES discharge points which help to ensure that sedimentation and runoff do not reduce the viability of the downstream waters. 3) Genwal, working with outside consultants and Wildlife Resources, has conducted stream inventories to define micro- and macroinvertebrates.

The monitoring plan is felt to be adequate for current operations and conditions. As discussed under "Fish and Wildlife Information," Genwal needs to commit to conduct macroinvertebrate surveys every three years.

#### *Stipulations:*



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Page 3-16, fourth paragraph

Guzzlers may not provide satisfactory mitigation. Genwal must commit to complying with the lease stipulation which requires replacement of water in quality and quantity.

Page 5-27, third paragraph

Guzzlers may not provide acceptable mitigation. Genwal must commit to replacing water in quality and quantity, as required by the lease stipulation.

*Response:*

The plan now says that if it is proven that mining activities have eliminated the flow of any seep or spring in the area, Genwal will notify Wildlife Resources, the Division, and the Forest Service. They will then begin working on an acceptable mitigation plan involving the use of guzzlers or other approved mitigation measures which replace the water in quantity and quality. This response satisfies the stipulations.

*Stipulation:*

Page 5-27, last paragraph

We do not object to Genwal paying livestock permittees for lost forage, but Genwal must also replace the water in quality and quantity, as required by the lease stipulation.

*Response:*

Genwal has added a phrase referring to the commitment to replace the quality and quantity of water.

**Findings:**

Genwal has complied with the requirements of these stipulations.

## **REVEGETATION PLAN**

Regulatory Reference: R645-301-341

**Analysis:**

*Stipulations:*

Page 3-18, first paragraph

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The Forest Service will not consent to the sediment pond being left in place after the mine area is reclaimed. It must be removed as agreed to in the original mine plan.

Page 5-46, Section 5.42.5 Timetable and Plans, Removal of Sedimentation Pond, second paragraph

The Forest Service will not consent to leaving the pond after the mine is reclaimed. This is an unapproved change from the last mine plan.

*Response:*

In Chapter 3, the plan says the sediment pond will be removed in final reclamation after the mine site has been revegetated and potential for erosion and sedimentation has been significantly diminished. In Chapter 5, the plan says the sediment pond will remain temporarily after the mining operations until adequate revegetation has been established to control erosion. These changes satisfy the stipulations.

**Findings:**

Genwal has complied with the requirements of these stipulations.

**LAND USE INFORMATION**

Regulatory Reference: R645-301-411.100 through R645-301-411.130; R645-301-411.200

**Analysis:**

*Stipulation:*

Page 4-3, fifth paragraph

The last word, "leases," should be replaced with "lease stipulations." The USFS consents, with stipulations, to the issuance of leases by the BLM. The USFS does not issue leases.

*Response:*

The plan now references Forest Service lease stipulations rather than leases.

**Findings:**

Genwal has complied with the requirements of this stipulation.

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## **ARCHAEOLOGICAL INFORMATION**

Regulatory Reference: R645-301-411.140

### **Analysis:**

#### *Stipulation:*

Page 4-5, first full paragraph

There should be mention of the archaeological survey done for the new lease tract.

#### *Response:*

The mining and reclamation plan says an additional archaeological survey was conducted for LBA #9 in 1992 and that the data are in Appendix 4-1A.

The cultural resources survey report in Appendix 4-1A says that, although there are several significant sites in the area, they do not contain standing architecture, delicate features, or susceptible rock are which could be adversely affected by mountain and slope subsidence which could result from future coal mining operations.

Because this report shows the locations of significant archaeological sites, it needs to be considered confidential information and not included with the rest of the mining and reclamation plan.

### **Findings:**

Genwal has complied with the Forest Service stipulation, but the cultural survey report in Appendix 4-1A contains information about important archaeological sites and needs to be considered confidential.

## **RECOMMENDATIONS**

Genwal still needs to clarify fish and wildlife information in its mining and reclamation plan. They also need to commit to conduct a macroinvertebrate survey every three years as specified in the stipulation. The cultural resources survey in Appendix 4-1A contains information about important archaeological sites and needs to be considered confidential.

The Division should consider enforcement action for the stipulation concerning the macroinvertebrate studies. By signing the new permit, Genwal agreed to the stipulation, but they have not abided by it.